Amendments to the Claims

The following listing of claims replaces all prior versions of the claims and all prior listings of the claims in the present application.

Claims 1-34 (Canceled)

Claim 35 (Previously Presented): A tire for a vehicle wheel, comprising a tread comprising a vulcanized polymeric base including:

at least one reinforcing filler dispersed in the polymeric base;

an amount of extractable residue of at least one vulcanization accelerator, containing at least one carbon atom bound to at least two sulfur atoms, greater than or equal to 0.5% and less than or equal to 1.8% by weight based on a total weight of the tread;

an effective amount of at least one activator, expressed as equivalents of zinc oxide, less than or equal to 0.6% by weight based on the total weight of the tread; and

an amount of combined sulfur less than or equal to 2.5% by weight based on the total weight of the tread.

Claim 36 (Previously Presented): The tire of claim 35, wherein the polymeric base is obtained starting from at least one polymer selected from the group comprising: natural rubber; polybutadiene; polychloroprene; polyisoprene; optionally halogenated isoprene-isobutene copolymers; butadiene-acrylonitrile copolymers; copolymers obtainable by polymerization of at least one conjugated diene with at least one vinyl aromatic hydrocarbon; optionally halogenated

isobutylene/p-methyl styrene copolymers; styrene-butadiene-isoprene terpolymers, obtained either in solution or in emulsion; ethylene-propylene-diene terpolymers; and mixtures thereof.

Claim 37 (Previously Presented): The tire of claim 35, wherein the at least one vulcanization accelerator is selected from accelerators including at least one 2-benzothiazole or sulphenamide group.

Claim 38 (Previously Presented): The tire of claim 37, wherein the at least one vulcanization accelerator has a following structural formula:

$$\begin{array}{c}
N \\
S \\
S \\
\end{array} C \cdot S_n \cdot X$$
(1)

wherein n is an integer from 1 to 5 and X is H or a group selected from:

wherein R1 and R2 are independently H; an alkyl group; a saturated ring optionally comprising C, S, or O; a cycloalkyl group having 5 or 6 carbon atoms; or a group

Claim 39 (Previously Presented): The tire of claim 37, wherein the at least one vulcanization accelerator is selected from the group comprising: 2-mercaptobenzothiazole (MBT), dibenzothiazyl disulphide (MBTS), N-cyclohexyl-2-benzothiazyl-sulphenamide (CBS), N-tert.butyl-2-benzothiazyl sulphenamide (TBBS), 2-morpholinthia-2-benzothiazole (MBS), N-dicyclohexyl-2-benzothiazyl sulphenamide (DCBS), benzothiazyl-2-diisopropyl sulphenamide (DIBS), benzothiazyl-2-tert.amyl sulphenamide (AMZ), morpholine-thiocarbonyl sulphenmorpholine (OTOS), N-tert.butyl-2-benzothiazol sulphenamide (TBSI), and mixtures thereof.

Claim 40 (Previously Presented): The tire of claim 37, wherein a weight ratio of the amount of extractable residue of the at least one vulcanization accelerator to the amount of the at least one activator, expressed in terms of zinc oxide equivalents, is less than or equal to 10:1.

Claim 41 (Previously Presented): The tire of claim 35, wherein a weight ratio of the amount of combined sulfur to the amount of extractable residue of the at least one vulcanization accelerator is greater than or equal to 1.2:1 and less than or equal to 2.8:1.

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Claim 42 (Previously Presented): The tire of claim 35, wherein the at least one activator is selected from the group comprising: oxygenated compounds of a metal selected from Zn, Bi, or Pb; salts formed between the metal and a fatty acid, either saturated or unsaturated, having from 8 to 18 carbon atoms; and mixtures thereof.

Claim 43 (Previously Presented): The tire of claim 35, wherein the at least one reinforcing filler comprises carbon black, silica, or carbon black and silica.

Claim 44 (Previously Presented): The tire of claim 43, wherein the at least one reinforcing filler comprises greater than or equal to 0 phr and less than or equal to 100 phr of carbon black and greater than or equal to 0 phr and less than or equal to 100 phr of silica.

Claim 45 (Previously Presented): A tread for a vehicle tire, comprising a vulcanized polymeric base including:

at least one reinforcing filler dispersed in the polymeric base;

an amount of extractable residue of at least one vulcanization accelerator, containing at least one carbon atom bound to at least two sulfur atoms, greater than or equal to 0.5% and less than or equal to 1.8% by weight based on a total weight of the tread;

an effective amount of at least one activator, expressed as equivalents of zinc oxide, less than or equal to 0.6% by weight based on the total weight of the tread; and

an amount of combined sulfur less than or equal to 2.5% by weight based on the total weight of the tread.

Claim 46 (Previously Presented): The tread of claim 45, wherein the at least one vulcanization accelerator is selected from accelerators including at least one 2-benzothiazole or sulphenamide group.

Claim 47 (Previously Presented): The tread of claim 46, wherein the at least one vulcanization accelerator has a following structural formula:

$$\sum_{S}^{N} C - S_n - X \tag{I}$$

wherein n is an integer from 1 to 5 and X is H or a group selected from:

wherein R1 and R2 are independently H; an alkyl group; a saturated ring optionally comprising C, S, or O; a cycloalkyl group having 5 or 6 carbon atoms; or a group

Claim 48 (Previously Presented): The tread of claim 45, wherein a weight ratio of the amount of extractable residue of the at least one vulcanization accelerator to the amount of the at least one activator, expressed in terms of zinc oxide equivalents, is less than or equal to 10:1.

Claim 49 (Previously Presented): The tread of claim 45, wherein a weight ratio of the amount of combined sulfur to the amount of extractable residue of the at least one vulcanization accelerator is greater than or equal to 1.2:1 and less than or equal to 2.8:1.

Claim 50 (Previously Presented): The tread of claim 45, wherein the at least one activator is selected from the group comprising: oxygenated compounds of a metal selected from Zn, Bi, or Pb; salts formed between the metal and a fatty acid, either saturated or unsaturated, having from 8 to 18 carbon atoms; and mixtures thereof.

Claim 51 (Previously Presented): The tread of claim 45, wherein the at least one reinforcing filler comprises carbon black, silica, or carbon black and silica.

Claims 52-65 (Canceled).

Claim 66 (Previously Presented): A process for manufacturing a tire for vehicle wheels, comprising the steps of preparing, around a circumference of a belt structure, a tread of claim 45, and linking, by vulcanization, the tread to the belt structure.

Claim 67 (Previously Presented): A process for covering a worn tire for vehicle wheels, comprising the steps of preparing, around a circumference of a belt structure, a tread of claim 45, and irreversibly linking the tread to the belt structure.

Claim 68 (Previously Presented): A method for increasing wear resistance of a tire, the tire being provided with at least one carcass ply on which a belt structure is circumferentially applied, and with a tread circumferentially applied around the belt structure and externally provided with a rolling surface suitable to get in touch with the ground, wherein the tire is provided with a tread of claim 45.